	<b>r:</b> <u>/ ()</u> nged a file	from non-	0/3 ASCII to		= TVT	ER		Edited by: Verified by:	_/n	(STIC
Chan	ged the n	nargins in	cases wh	ere the s	equence te	ext was 'v	vrapped.	down to the	ne next lin	ı <b>e.</b>
Edite	d a forma	t error in t	ne Currer	nt Applica	tion Data s	section, s <sub>l</sub>	pecifically	<b>/</b> :		
					with the a			per. The n	-	outted by the
Adde	d the mar	datory he	ading and	d subhead	dings for "C	Current Ap	oplication	Data".		
Edite	d the "Nu	nber of Se	quences	field. Ti	ne applicar	nt spelled	out a nu	mber inste	ad of usir	ng an integer.
Chan	ged the s	pelling of a	mandate	ory field (f	the heading	gs or sub	headings	s), specifica	ally:	
Corre	cted the S	SEQ ID NO	) when ol	bviously i	ncorrect. 1	The seque	ence nun	nbers that	were edite	ed were:
Insert	ed or con	ected a no	ıcleic nun	nber at th	e end of a	nucleic li	ne. SEC	D ID NO's	edited:	
					nses must leading, thi					
Inser	ted colons	after hea	dings/sut	oheadings	s. Heading	s edited i	included:			
Delet	ed extra,	invalid, he	adings us	sed by an	applicant,	specifica	الا:			٠.
					eginning/er ner invalid			cretary init	ials/filenar	me at end of t
Inser	ted mand	atory head	dings, spe	ecifically:						
Corre	ected an o	bvious er	or in the	response	, specifical	lly:	• • • •			
Edite	d identifie	rs where	upper cas	se is used	l but lower	case is re	equired, o	or vice ver	sa.	
Corre	ected an e	error in the	Number	of Seque	nces field,	specifica	lly:			
A "Ha	ard Page	Break" co	de was in	serted by	the applica	ant. All o	ccurrenc	es had to t	oe deleted	i.
		stop cod n bug). S				and adjus	ted the "	(A)Length:	field acc	ordingly (erro
Othe	Λ	<u>, 2 -,</u>	insi	ted.		retu	us	•		
	•									

\*Examin r: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



OIPE

RAW SEQUENCE LISTING DATE: 03/26/2002 PATENT APPLICATION: US/10/087,013 TIME: 12:03:19

Input Set : A:\PTO.AMC.txt

```
<110> APPLICANT: Arthur Scherf
             Louis H. Miller
     5
     6
             Benoit Gamain
     7
             Dror I. Baruch
     8
             Pierre Buffet
     9
             Christine Scheidig
     10
             Jurg Gysin
             Bruno Pouvelle
    11
    12
             Nobutaka Fujii
    13
             Joseph Smith
    15 <120> TITLE OF INVENTION: IDENTIFICATION OF THE DOMAIN OF
             PLASMODIUM FALCIPARUM ERYTHROCYTE MEMBRANE PROTEIN 1
    16
    17
             (PFEMP1) THAT MEDIATES ADHESION TO CHONDROITIN SULFATE A
     20 <130> FILE REFERENCE: NIH176.001C1
C--> 22 <140> CURRENT APPLICATION NUMBER: US/10/087,013
C--> 22 <141> CURRENT FILING DATE: 2002-02-21
     22 <150> PRIOR APPLICATION NUMBER: PCT/US00/24195
    23 <151> PRIOR FILING DATE: 2000-09-01
    25 <150> PRIOR APPLICATION NUMBER: 60/152,023
    26 <151> PRIOR FILING DATE: 1999-09-01
    28 <160> NUMBER OF SEQ ID NOS: 11
     30 <170> SOFTWARE: FastSEQ for Windows Version 4.0
    32 <210> SEQ ID NO: 1
    33 <211> LENGTH: 10628
     34 <212> TYPE: DNA
     35 <213> ORGANISM: Plasmodium falciparum
     37 <400> SEQUENCE: 1
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    39 ggagatgcta aaagccctat tataaaagaa agtcacaaaa gtgcaagaaa tgttttggaa
                                                                             120
    40 cgttatgcca aaaatataag acatccatca aaatatgcaa aagaacatgt ggattcgttg
                                                                             180
     41 aaaggggatt tgacgaaagc agaatttegt ggtggteett etacgecagt aaataageat
                                                                             240
    42 aattattatt atccatatcc atgtaattta gatcataagg aacatactaa tttacggtat
                                                                             300
    43 gatgatgtga atttgagaca teettgeeat ggtagagaac aaaacegatt tgatgaagat
                                                                             360
     44 gaagaatctg aatgtggaaa taaaatacgt aattataaaa gaaaaaatga tgctatagcc
                                                                             420
    45 tgtgcgccac ctagaagacg acatatgtgt gataaaaact tggaagctct aaatgatata
                                                                             480
    46 aatacccaaa atattcatga tttattggga aatgtactag ttacagcaaa atacgaaggt
                                                                             540
    47 gaatcaattg ttaataatca tccacataaa ggaacttcag acgcttgtac tgctcttgca
                                                                             600
    48 cgaagttttg cagatatagg tgatattgta agaggaatag atatgtttaa accaaatgtc
                                                                             660
    720
    50 gatgaagtaa aaaatgatta caatcctgat ggatctggaa attattataa attaagagaa
                                                                             780
    51 gcatggtgga atgtgaatag aaataaagta tgggaagcta taacatgtga tgcatcatat
                                                                             840
    52 aaatetggat attttatgea ateagaaagt aatacaceat tatttteaaa teetaaatge
                                                                             900
    53 ggccataaac aaggaaaggt teetaceaat ttagattatg teecteaata tttaegttgg
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/087,013

DATE: 03/26/2002 TIME: 12:03:19

Input Set : A:\PTO.AMC.txt

		ggggagaaga					1020
		gtaatgacaa	-				1080
56	acaactattt	ggaaaaaagg	tattttgcat	ttggataata	agtgtactga	ctgttcgact	1140
57	aaatgcaaag	tttttgaagt	ttggttaggg	aatcaacaag	aagcatttaa	aaaacaaaaa	1200
		aaaaagaaat					1260
59	attaatagtg	aatattataa	acaattttat	gaaaaactta	aggaaacgca	atatgcaact	1320
60	aatgacactt	ttttaaattt	actaaatgaa	ggaaagtatt	gtaaaggagg	attaccagga	1380
61	gaaaaggata	ttacttttac	taacagtgct	gatgacaaag	ggatatttta	tcgttcagaa	1440
62	tattgccaag	tgtgtcccga	ctgcggggtc	aaatgtgatg	gtataaaata	cacacacaaa	1500
63	tcagataatg	atcgtgaacg	tgtaaataat	gaagactata	aacctccatg	gggtgtgaag	1560
64	cctactaata	tcactgtcct	ttatagtggt	aatgaacaag	gtgatattac	acaaaaatta	1620
65	gaaaattttt	gtaacagctc	aactaattac	aaaqataaaa	ataatcaaaa	atgggaatgc	1680
		atgaaaatat					1740
		agataatatc					1800
	_	ttaagtggaa		_			1860
		aatgtaacag	_	_		_	1920
		atagtataaa	_			_	1980
		ttaataatct	-		_	-	2040
	_	caaaatggaa				_	2100
		aaaataatag		_	_		2160
		ctgccacgat					2220
	_	caacaaaccc				-	2280
		tagcacaata					2340
	_	tgaaaggaaa					2400
		acaatttatg					2460
		catgtgatgg	-		_		2520
		gggaagtgga			_		2580
		gacgacatat					2640
	_	gtaatattgt	_				2700
	_			-			2760
	_	aatatgaagc	_		-	_	
		aagaagtaac	-	-			2820
		cagatatagg					2880
		agctgcaagg					2940
		gaaatgataa	_				3000
		aagctaatag	-				3060
		aatcgggaca					3120
		atgattatat					3180
		tgcagaaaaa					3240
		atggtcaagg					3300
		atgaatataa					3360
		acaaagaatt					3420
95	gaagcttcca	gtactgccaa	aaatcatata	gacaggaatg	ttattgaatt	tttgtcggaa	3480
96	ttataccaac	aaaatggtgg	caaaagtaat	aaaagtggta	ctagtgatga	aagtgctgtc	3540
97	attggtacta	acaccacgta	tgaaaatgtt	ggagcatatc	tccatgatac	aggaaatttt	3600
98	gatgattgtc	agtcacaaaa	tgagttttgt	gatgaaaaaa	gtgatggtaa	ggataacgaa	3660
		ttagagataa					3720
						a ggatacggaa	3780
						t agaagattgt	3840
102	2 catccaaaa	a agaatagtaa	tggatatccc	gattggcaat	t gcggaaatai	t aaatttagtg	3900



DATE: 03/26/2002

TIME: 12:03:19

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/087,013

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Input Set : A:\PTO.AMC.txt

103	gaagaccctc	gtgtgtgtat	gccccctaga	agacaaaagt.	tatgcgtaca	tttcttggca	3960
			attacaatca				4020
			cttctcatgg				4080
			aaaagaaggc				4140
			tagagatttt				4200
			agagcaaata		-		4260
		_	ccaagaatgg	-		_	4320
	_		aaaaattggg				4380
			tagtgacaaa				4440
		_	aaccgaatgg	_			4500
			aaaatgtaag				4560
			ctacgttaaa				4620
	-		tgaacgcgac	-	_		4680
	-		tggaacgaat	-			4740
	,	-	tggaagtgcc			-	4800
			tgccgacaaa				4860
		_	ttcgagtaaa		_	_	4920
			gcaaaacaaa				4980
			teettetegt				5040
			agttaaagat		-		5100
			caatttgggt				5160
			gcacaaatat		-		5220
			aagagatata				5280
	_	_	tttgaagaaa		_		5340
	_		aggaaatccc				5400
		_	gaacgcaatg				5460
			aagaagtgat				5520
			ggggaaaaat			_	5580
			tgaagatttt			_	5640
			ttatacttgt	-			5700
			taaaaaattt				5760
		-	gaataaagac				5820
			atatttagac				5880
			gtgtatgaaa		_	-	5940
			atcattagac				6000
	_		tccaccacgt				6060
			ggcatcgaaa				6120
			tctaacaaca				6180
			acgaacatca		-		6240
			ttcgaataaa				6300
			atatcctaaa				6360
			gcctcctagg				6420
			aaataagcgt	_	_		6480
		-	atttttgtgg				6540
			aacaattcca				6600
			gttttttgga	-	-	-	6660
			aaccattctc				6720
	-		taaaatattt	_	_		6780
			ttatcatctc				6840
						_	



RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/087,013

DATE: 03/26/2002 TIME: 12:03:19

Input Set : A:\PTO.AMC.txt

				ctgacgcctt			6900
			-	tgggcagaag	-		6960
154	gaacagttgt	taaaattgga	ggcgggctgt	aaggaatatg	agtgtaatgg	tagtaatgac	7020
				gtaacatatc			7080
156	aaaactgaat	atgaaagaca	aagagaaaag	ttcaaaaagg	ataaagatgg	caaaaagtat	7140
157	aaggattatc	cttctactga	aagagacata	gagaaggcaa	catgtgctca	tgaatattta	7200
158	aacatgaaat	taaaagaatt	atgtggcaat	aaggattgtt	cttgtatgca	aaaaccttct	7260
159	tcacaactac	caaaaacaac	acaacaatca	caatcatccg	atgctaatga	tatgccagaa	7320
160	tcgctggatt	atgttcctga	agaatttaac	aagtgtgagt	gtcctgaact	ttcaaaaaag	7380
161	ggatctatga	ttcatacaaa	aaaaattact	gaacctaaaa	tacctatgaa	ttgtgtagag	7440
162	aaagcagcat	attatttatc	taaagaagca	gaaaataata	tggatattac	cttgaaggaa	7500
163	aaatttatac	ctattgagtc	tacaaaggaa	aaggaaagta	aaaatagttg	gactaataat	7560
164	aatccttgcg	atcctaagaa	accttatgca	cctgataaat	atataggaag	aagaaaccct	7620
165	tgtgaaaata	gagaagaaaa	tcgttttaag	gtagattatg	aatggaaatg	ttacaaaaat	7680
166	tcaaagttct	atcaggagaa	aaaaagagta	tgtgtacctc	caagaagaga	acatatgtgc	7740
167	ttaaggaatt	tagatgaaat	taaaattgaa	agacttaagg	atagtaatta	tctcctaaaa	7800
168	atggttcgtc	gaactgcacg	aaatgaagga	atagacataa	taaaaaactt	caactcagag	7860
169	aacgggtgcg	caatgaatcc	aatatgtgat	actatgaaat	atagtttcgc	tgatctgggt	7920
170	gacatagtta	gaggaacaga	tatgttacga	attggtggtt	acttacctcc	cgtagaaata	7980
171	aaattatata	aggtttttga	atacatatat	ggaaaatgga	gaaataaaaa	taaaggtaga	8040
172	aataaataca	acgatgtaca	aacgtttcgt	tctgcttggt	gggatgctaa	tagaaaagat	8100
173	atttggaaag	caatgacgtg	caaagcacca	gaagatgcaa	aactttttag	aaaaggaaga	8160
			-	caagataagt			8220
				cgatggatga			8280
				tttaaaaaat		-	8340
				aataagtgtg		=	8400
				aaatctctat			8460
				acaaaaatct			8520
	-			agtgaatgtt	_	_	8580
				tataaattta			8640
	_	_		ccaaaaagtt			8700
	_	_		tgtcctaccg			8760
		_		aagaatgatt			8820
				gatgataaca	_	_	8880
		_	-	actgcatata		-	8940
		_	_	gctttcagtc	_		9000
	-			gaggcaatga			9060
				gacacttcat			9120
				aatcgtaaaa			9180
				tataaaattg			9240
				gaagaaacta			9300
				aagaaacatg			9360
				gaagcgtcag			9420
				ttgaatatat			9480
		_	_	gatcaatctt	_		9540
			-	aaatcaaaag		-	9600
		-	_	acaaaaaata	_		9660
				tattttgttg			9720
				gagcaaacag			9780
200	catytactag	acyyaaacac	aaaayaayaa	yaycaaacay	Lecycociaa	aycactctat	3/00

RAW SEQUENCE LISTING DATE: 03/26/2002 PATENT APPLICATION: US/10/087,013 TIME: 12:03:19

Input Set : A:\PTO.AMC.txt

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201 ttctttacac cccatgtaga ttctttctat caaqcacctt tattctcaac acatcqagta
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203 gcgttaggtt tgatagcgct tcatttcatg aagaaaaaat tcaaatcgtc tgtggacttg
                                                                          9960
204 ttgcgtatac tgaatatccc gcaaggagag tatggaatgc ctacgttgga atccaaaaat
                                                                         10020
205 aggtacatac catatagaag tggtccatat aaaggcaaaa catatatata tatggaagga
                                                                         10080
206 gatactagtg gagatgaaga taaatatatg tgggacttat cttcctctga tattacttca
                                                                         10140
207 tccgaaagtg agtatgaaga attggatatt aatgatatat atgtaccagg tagtcctaaa
                                                                         10200
208 tataaaacat tgatagaagt agtactagaa ccatcaaaaa gggatatacc aagtgatgat
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209 acaccaagta atgatacacc acgtacgaat agatttattg atgatgaatg gaatgaactg
                                                                         10320
210 aaacatgatt ttgtatctca atatttacca aatacagaac caaataataa ttacaaaagt
                                                                         10380
211 gcagatattc caatgaatac agaacctaat actttatatt ctgataatcc tgaagaaaaa
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212 ccttttatta tatctattca tgatagggat ttatatactg ggaaagaaat tagttataat
                                                                         10500
213 attaatatga gtactaatac taataatgat attccaatga atgctagaaa tgattcttat
                                                                         10560
214 agaggtatag atttaattaa tgattcacta gtggtgctaa acctattgat atatatgatg
                                                                         10620
215 aagtattg
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217 <210> SEQ ID NO: 2
218 <211> LENGTH: 3542
219 <212> TYPE: PRT
220 <213> ORGANISM: Plasmodium falciparum
222 <400> SEQUENCE: 2
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225 Ser Ser Leu Glu Gly Asp Ala Lys Ser Pro Ile Ile Lys Glu Ser His
226
                                    25
227 Lys Ser Ala Arg Asn Val Leu Glu Arg Tyr Ala Lys Asn Ile Arg His
228
229 Pro Ser Lys Tyr Ala Lys Glu His Val Asp Ser Leu Lys Gly Asp Leu
230
                            55
231 Thr Lys Ala Glu Phe Arg Gly Pro Ser Thr Pro Val Asn Lys His
233 Asn Tyr Tyr Tyr Pro Tyr Pro Cys Asn Leu Asp His Lys Glu His Thr
234
                    85
                                        90
235 Asn Leu Arg Tyr Asp Asp Val Asn Leu Arg His Pro Cys His Gly Arg
                100
                                    105
237 Glu Gln Asn Arg Phe Asp Glu Asp Glu Glu Ser Glu Cys Gly Asn Lys
                                120
                                                     125
239 Ile Arg Asn Tyr Lys Arg Lys Asn Asp Ala Ile Ala Cys Ala Pro Pro
                            135
241 Arg Arg Arg His Met Cys Asp Lys Asn Leu Glu Ala Leu Asn Asp Ile
242 145
                        150
                                            155
243 Asn Thr Gln Asn Ile His Asp Leu Leu Gly Asn Val Leu Val Thr Ala
244
                    165
                                        170
245 Lys Tyr Glu Gly Glu Ser Ile Val Asn Asn His Pro His Lys Gly Thr
                180
                                    185
247 Ser Asp Ala Cys Thr Ala Leu Ala Arg Ser Phe Ala Asp Ile Gly Asp
248
            195
                                200
249 Ile Val Arg Gly Ile Asp Met Phe Lys Pro Asn Val His Asp Lys Val
                            215
                                                220
251 Glu Thr Gly Leu Arq Glu Val Phe Lys Lys Ile His Asp Gly Met Glu
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/26/2002 PATENT APPLICATION: US/10/087,013 TIME: 12:03:20

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\03262002\J087013.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the  $\langle 220 \rangle$  to  $\langle 223 \rangle$  fields of each sequence which presents at least one n or Xaa.

Seq#:6; Xaa Pos. 2,5